

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P558391

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-80-87-EDD**

Issue Date: 7/16/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P558391
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FUSL-12-4-LD4-3STD-50-UNV-80-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

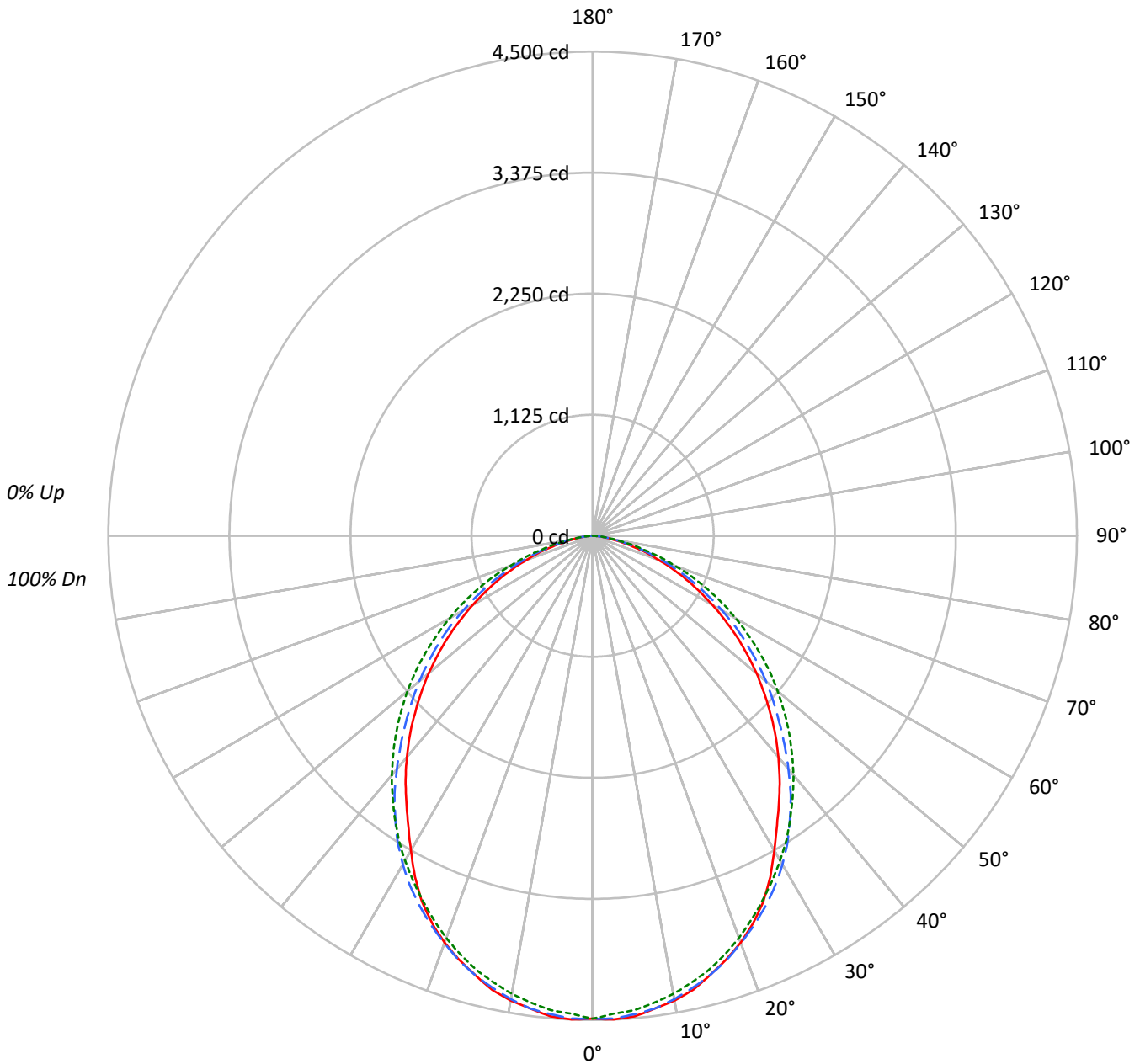
Lumens per Lamp: N/A
Luminaire Lumens: 10378.0 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73																			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63																			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54																			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47																			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42																			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37																			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34																			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30																			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12078	12078	12078
5°	12110	12059	11956
10°	11981	11948	11812
15°	11769	11769	11634
20°	11520	11534	11386
25°	11140	11278	11099
30°	10490	10962	10828
35°	9912	10507	10524
40°	9431	9940	10200
45°	8891	9337	9817
50°	8323	8799	9399
55°	7677	8186	8890
60°	6914	7470	8268
65°	6104	6642	7521
70°	5087	5657	6390
75°	3998	4518	5002
80°	2859	3180	3527
85°	1862	1862	1757



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	422.6	4.1
10°-20°	1187.1	11.4
20°-30°	1734.8	16.7
30°-40°	1969.2	19.0
40°-50°	1901.0	18.3
50°-60°	1568.2	15.1
60°-70°	1044.3	10.1
70°-80°	467.3	4.5
80°-90°	83.6	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	3344.5	32.2
0°-40°	5313.7	51.2
0°-60°	8782.8	84.6
0°-90°	10378.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10378.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4488	4488	4488	4488	4488	
5°	4483	4481	4464	4440	4426	424
15°	4224	4235	4224	4205	4176	1191
25°	3752	3781	3798	3771	3738	1718
35°	3017	3059	3198	3216	3204	1891
45°	2336	2376	2454	2566	2580	1803
55°	1636	1664	1745	1842	1895	1460
65°	959	984	1043	1117	1181	951
75°	384	405	434	455	481	420
85°	60	60	60	57	57	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4488.2	4488.2	4488.2	4488.2	4488.2
2.5°	4500.3	4502.0	4491.7	4464.1	4446.8
5°	4483.0	4481.3	4464.1	4439.9	4426.1
7.5°	4433.0	4436.5	4431.3	4396.8	4377.9
10°	4384.8	4386.5	4372.7	4345.1	4322.7
12.5°	4322.7	4321.0	4302.0	4288.2	4252.0
15°	4224.4	4234.8	4224.4	4205.4	4176.1
17.5°	4129.6	4129.6	4136.5	4103.7	4081.3
20°	4022.7	4027.8	4027.8	4002.0	3976.1
22.5°	3898.5	3914.0	3919.2	3891.6	3860.6
25°	3752.0	3781.3	3798.5	3770.9	3738.2
27.5°	3574.4	3619.2	3670.9	3650.2	3614.0
30°	3376.1	3441.6	3527.8	3510.6	3484.7
32.5°	3188.1	3253.7	3372.6	3365.7	3351.9
35°	3017.4	3058.8	3198.5	3215.7	3203.7
37.5°	2855.4	2893.3	3024.3	3064.0	3053.6
40°	2684.7	2726.0	2829.5	2900.2	2903.6
42.5°	2515.7	2555.3	2639.8	2741.6	2741.6
45°	2336.4	2376.0	2453.6	2565.7	2579.5
47.5°	2160.5	2201.9	2277.7	2389.8	2412.2
50°	1988.1	2026.0	2101.9	2210.5	2245.0
52.5°	1808.7	1850.1	1924.3	2024.3	2074.3
55°	1636.3	1663.9	1744.9	1841.5	1894.9
57.5°	1457.0	1482.9	1574.2	1657.0	1712.2
60°	1284.6	1317.3	1388.0	1472.5	1536.3
62.5°	1119.0	1153.5	1213.9	1288.0	1360.4
65°	958.7	984.5	1043.2	1117.3	1181.1
67.5°	803.5	825.9	884.5	936.3	1003.5
70°	646.6	675.9	719.0	769.0	812.1
72.5°	520.7	532.8	569.0	605.2	650.0
75°	384.5	405.2	434.5	455.2	481.1
77.5°	275.9	287.9	305.2	322.4	346.6
80°	184.5	189.7	205.2	208.6	227.6
82.5°	112.1	115.5	119.0	120.7	127.6
85°	60.3	60.3	60.3	56.9	56.9
87.5°	34.5	34.5	29.3	24.1	17.2
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)